

Haemagazine

For the Students, By the Students

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MESSAGE

I am glad to note that the MBBS students of SRMC & RI have brought out an E-magazine highlighting the social and Health aspects of Hemato oncological problems in children

I would like to congratulate the students and faculty who have made this possible.

Best wishes for continued efforts.

V.R.V.A. —

**V. R. VENKATAACHALAM
CHANCELLOR**



SRI RAMACHANDRA

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MESSAGE

I am happy to note that the MBBS Batch (Interns) of SRIHER are bringing out a First of its kind E-magazine titled "Haemagazine" which is focussed on medical and social issues related to pediatric hemato-oncology. This will include topic of interest for exams in an article format and imaging studies or lab investigations in quiz format.

The magazine is targeted not only for our institute students but also for the Alumni all over the world, which will be published on quarterly basis and this will be shared on social media.

The magazine is edited entirely by the Interns team and staff advisors like Dr.P.Ramachandran, Dr.J.Julius Scott. Dr.Leena Dennis would be guiding them.

I take this opportunity to appreciate the entire team for their stupendous effort.



Dr. P.V. VIJAYARAGHAVAN

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Question #1

Where was this "bubble"-ing child living and what was the name of the disease he was suffering from?



Question #2

- A. Identify the striking abnormality in the cells.
- B. What is the drug used for the treatment of this disease that can cause hemolysis?



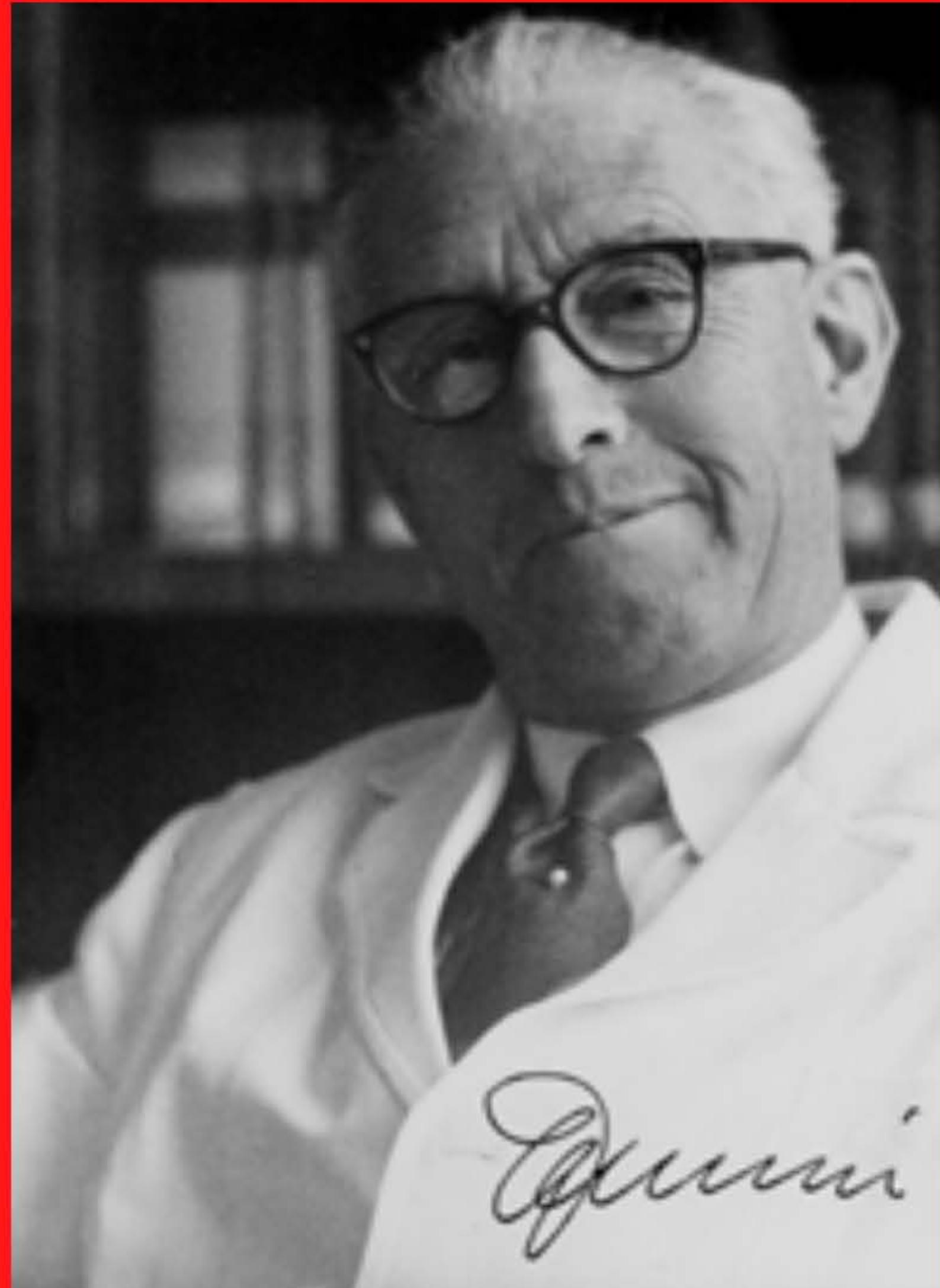
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Question #3

A 10 year old child presented with pancytopenia and short stature.

Given below is the famous Swiss paediatrician who discovered the disease she has.

- A. Identify the Doctor.
- B. Spot the diagnosis.



Human Papilloma Virus Awareness

Do you know enough about a jab that can prevent cancer?



Vaccine preventable cancer

Cancer of the cervix is the only cancer that is almost entirely preventable through a safe, effective vaccine and screening protocol.

About 96,922 new cervical cancer cases are diagnosed annually in India (estimates for 2018). Cervical cancer ranks as the 2nd leading cause of female cancer in women aged 15 to 44 years in India.



Did you know?

4TH

MOST COMMON CANCER IN WOMEN



7TH

WORLDWIDE



2ND

IN INDIA

HPV VACCINATION IN INDIA (IAP RECOMMENDATION)

- Minimum age: 9 years
- HPV4 [Gardasil®] and HPV2 [Cervarix®] are licensed and available
- Only 2 doses of either of the two HPV vaccines (HPV4 & HPV2) for adolescent/preadolescent girls aged 9-14 years, the doses are administered in 0-6 months schedule.
- For girls 15 years and older, and immunocompromised individuals 3 doses are recommended. The schedule is HPV4 (0, 2, 6 months) or HPV2 (0, 1, 6 months)
- For two-dose schedule, the minimum interval between doses should be 5 months.



What is the vaccine protecting against?

Human papillomavirus (HPV) infection is now a well-established cause of 70% of all cervical cancer cases worldwide.

Although there are over 150 strains, HPV types 16 and 18 are responsible for about 70% of all cervical cancer cases worldwide. HPV vaccines that prevent HPV 16 and 18 infections are now available and have the potential to reduce the incidence of cervical and other anogenital cancers.

Worldwide, HPV16 and 18 (the two vaccine-preventable types) contribute to over 70% of all cervical cancer cases, between 41% and 67% of high-grade cervical lesions and 16-32% of low-grade cervical lesions.

Great! When should I get vaccinated?

WHO recommends HPV vaccination for girls alongside screening and treatment for older women to reduce their cancer risks.

The vaccine is most effective when given early in adolescence between the age of 9 and 14 years - BEST before girls are exposed to the virus.

So, is this a worry only for females?

Nope! There is growing evidence of HPV being a relevant factor in other anogenital cancers (anus, vulva, vagina, and penis) as well as head and neck cancers.

What test is used for screening?

A liquid-based technology called the Papaincolaou smear, taken at the transitional zone of the cervix - between the endocervix and ectocervix.

DR. SCOTT'S MESSAGE

HOPE... MEDHOPE...

THE SQUIRREL - THE OFTEN QUOTED EXAMPLE OF THE EAGERNESS TO HELP OTHERS, WHICH REPORTEDLY HELPED LORD RAM BUILD A BRIDGE ACROSS THE SEA. THE ANECDOTE SIGNIFIES THAT EVEN SMALL ACTS OF KINDNESS AND HELP AT THE RIGHT TIME PLAY A HUGE ROLE.

THIS TINY RODENT THAT GOES AROUND CHEWING FRUIT DOES NOT KNOW THAT IT IS SOWING THE SEEDS OF TOMORROW'S TREES ALONG ITS WAY. THE SQUIRREL NEVER TAKES CREDIT FOR ITS ACT OF BENEVOLENCE TOWARDS ITS ENVIRONMENT (NOR DOES IT TAKE A PHOTO AND UPDATE ITS STATUS ON WHATSAPP...)

"SOW THE SEED, AND SOMEDAY IT SHALL BECOME A TREE. MULTITUDES SHALL BENEFIT FROM THE HARD WORK OF THEE"

STUDENTS ARE LIKE SQUIRRELS FOR "RAMA". THEY WILL HELP SOME "RAMA" NOW, AND THEY WILL BECOME THE FUTURE "RAMA" TO CREATE "RAMARAJIYAM."

I BELIEVE THAT...

WHEN WE INFLUENCE STUDENTS NOW THROUGH OUR VALUES, THEY WILL CHANGE OUR SOCIETY LATER. BUT WE SHOULD ALSO ACCEPT THAT A STUDENT'S LIFE IS TO BE ENJOYED AND WE SHOULDN'T FORGET THAT.

AS PHILOSOPHER IMMANUEL KANT HAS SAID, "STUDENTS SHOULD ENJOY TO THE MAXIMUM WITH MINIMUM DISTURBANCE TO CO-HABITANTS", AND WE SHOULDN'T HINDER THAT.

ONE EXAMPLE OF THE IMPACT OF OUR SERVICE AMONG THE STUDENTS IS... A STUDENT AT OUR MEDICAL COLLEGE FOUND A 500RS NOTE LYING ON THE FLOOR AND WENT TO HAND IT OVER TO THE DEAN'S OFFICE, WITH THE REQUEST TO USE THIS MONEY TO TREAT A CHILD WITH CANCER IN G BLOCK.

I AM NOT RECOMMENDING THAT EVERYONE SHOULD CONTRIBUTE ONLY TO CANCER. THERE ARE SO MANY OTHER SPECIALITIES/NEEDY WHICH REQUIRE SOCIAL SUPPORT. WHAT I WANT TO EMPHASIZE IS THAT STUDENTS SHOULD HAVE SOME THINKING OF TAKING RESPONSIBILITY TOWARDS CONTRIBUTING TO THE SOCIETY FOR ITS WELFARE IN THE FUTURE.

AS ABDUL KALAM AND SWAMI VIVEKANANDA SAID, WE NEED THE YOUNGSTERS TO TRANSFORM THE SOCIETY.



OUR RACE IS "HUMAN"
OUR RELIGION IS "LOVE"
OUR LANGUAGE IS "KINDNESS"

YOURS,

A handwritten signature in black ink, appearing to read "J. Julius Xavier Scott".

DR. J. JULIUS XAVIER SCOTT
MD, DCH, DNB (PEDIATRICS),
FPHO (AUSTRALIA)



The MedHOPE Foundation

A foundation by Medical Students for
Hemato-oncology patients

MedHOPE is a non-profit, non-governmental organization started in 2011 at **Sri Ramachandra Institute of Higher Education and Research** by MBBS students, in order to help cancer-afflicted children in a holistic manner.

MedHOPE won the **Most Innovative Project of Cancer Support** award in 2013 at National Level in Tata Memorial Hospital, Mumbai.

MedHOPE conducts Rose Day, International Childhood Cancer Awareness Day, blood donation camps, walkathons, play day activities and is actively involved in organizing fundraising events for children with cancer.

They also conduct an annual MBBS undergraduate exam refresher course – **HOPE**, wherein apart from the final year exam oriented-training, MBBS students are also exposed to career options discussions. The funds generated through this conference are donated towards aiding the treatment of cancer-afflicted children.



Commemorating the **Rose Day on September 22nd**, this year the MedHOPE volunteers donated roses and gifts to the children with cancer staying in the ward. They also organized a **blood donation drive** from 22nd to 24th September.

Blood Donation Camp 2018



Solomon Pappaiah Pattimandram 2017



HOPE Conference 2016



FFER Chinmayi Live-In Concert 2016



S. P. Balasubrahmanyam Concert 2014

A N S W E R S

Question #1

The photo shows David Vetter, a child suffering from **Severe Combined Immunodeficiency (SCID)**.

It is also known as the "**bubble baby disease**". Children affected by SCID are extremely vulnerable to infectious diseases and hence, before the era of antibiotics/BMT, some of them would live in a sterile environment - like the bubble shown in the photo.

Salient features of SCID:

- Primary immunodeficiency disease with profound T-lymphocyte defect.
- It usually manifests **within 6 months of life** and is considered as a **MEDICAL EMERGENCY**.
- It is an emergency indication for **BONE MARROW TRANSPLANT** (only curative option).
- **EARLY DIAGNOSIS** is the key to effective management.
- Comprehensive family history is important - e.g. early sibling deaths, recurrent infections, consanguinity.
- Pointers towards SCID - absolute lymphocyte count **ALC <3500/cubic mm in INFANCY** or **ALC <1500/cubic mm beyond INFANCY**.
- **TREC - T-cell excision circles** - by-product of T-cell production used as a **NEWBORN SCREENING METHOD** for early diagnosis.

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Question #2

- A. Malarial parasites within RBCs - ring stage.
- B. Primaquine.

In cases of high parasite load, it can cause a severe acute intravascular hemolytic episode leading to circulatory failure, severe anemia and renal failure – called **BLACKWATER FEVER**.

The drug primaquine can also cause an intravascular hemolysis in children who have **G6PD deficiency**.

A N S W E R S

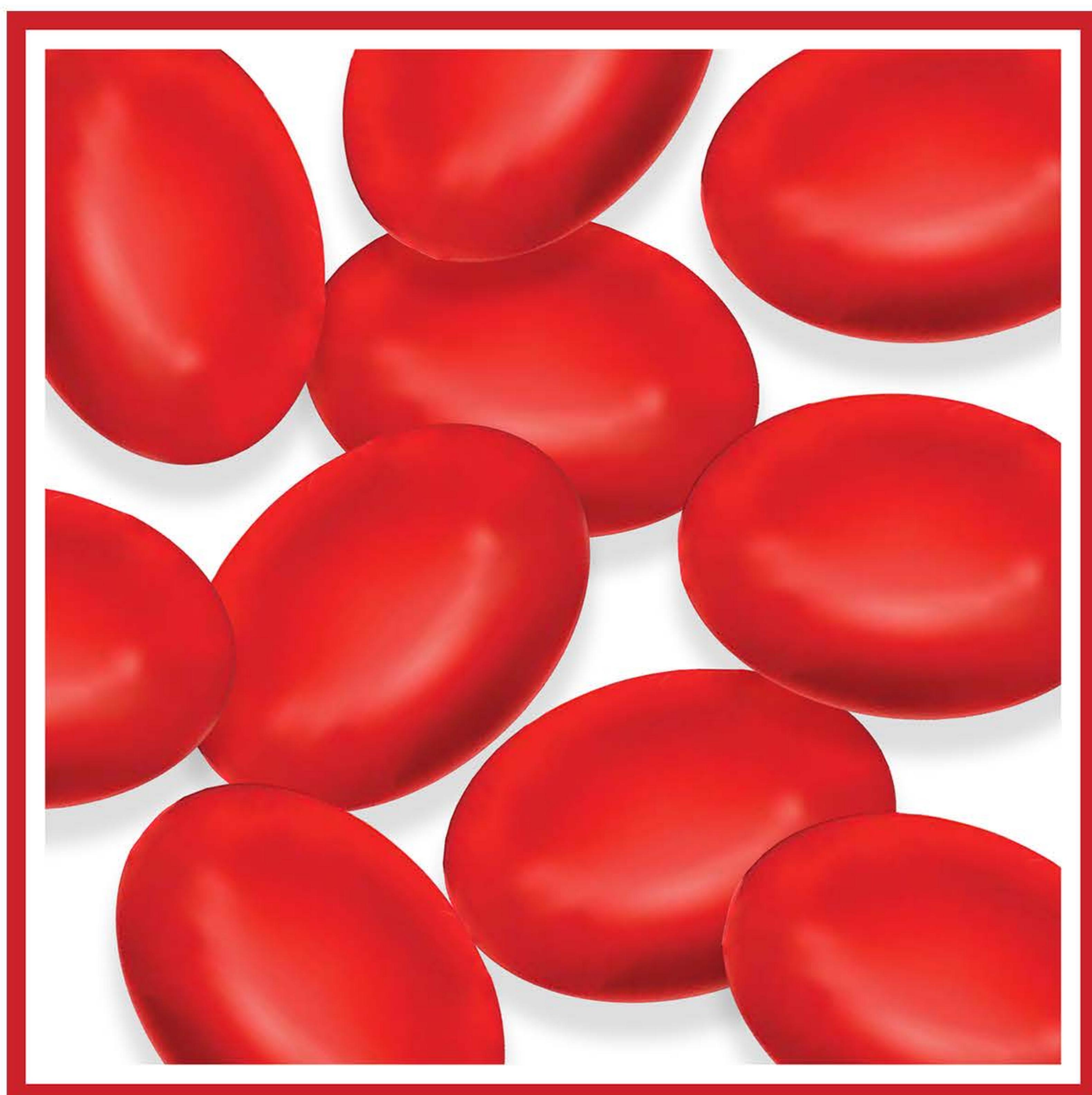
Question #3

- A. Dr. Guido Fanconi
- B. Fanconi anaemia

Guido Fanconi, a Swiss paediatrician, was regarded as one of the founders of modern paediatrics. There are several medical conditions named after him. In 1927, he described hereditary panmyelopathy with short stature and hyperpigmentation, known as Fanconi anaemia. In 1934, the first cases of cystic fibrosis of the pancreas were described in a thesis written under his direction. His contribution to renal physiology also lead to his name being lent to Fanconi syndrome.

Salient features of Fanconi Anemia:

- **Autosomal recessive** disorder with pancytopenia, which usually manifests at the end of the 1st or 2nd decade of life.
- **Thumb anomalies** (bifid thumb, hypoplastic thenar eminence), dysmorphism, short stature, Café-au-Lait macules, renal anomalies (usually ectopic kidney) and genitourinary anomalies are characteristic features.
- Being a premalignant condition, these patients are prone to **develop hematological malignancies**, especially Acute Myeloid Leukemia (AML) and squamous cell carcinoma of the head and neck.
- **Bone marrow transplant** corrects the hematological manifestations and improves the quality of life.



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